A LIST OF SPIDERS COLLECTED IN ARIZONA BY MESSRS, SCHWARZ AND BARBER DURING THE SUMMER OF 1901.

By Nathan Banks,

Custodian, Section of Arachnida.

During the summer of 1901, Mr. E. A. Schwarz and Mr. H. Barber collected extensively in parts of Arizona, especially in the vicinity of Williams. In the following pages is a list of the Arachnida that they collected. In a previous paper ¹ I have reported on a collection made by Mr. Schwarz in southern Arizona. There is, however, very little similarity in these two collections. The one made during the past summer contains a great many northern species; in fact, a large majority of them occur in Colorado.

In this list there are recorded 64 spiders and 13 other arachnids, a total of 77 species. In the previous article there were 55 species, 37 of which are not found in this list; this makes the total number of arachnids recorded from Arizona 114.

Of the spiders in this list the Attidae are represented by 13 species, the Thomisiidae by 12 species; none of the other families have more than 8 species. Three species are described as new.

This material forms part of the collections of the United States National Museum.

Order ARANEIDA.

Family THERAPHOSID, E.

EURYPELMA RUSTICUM Simon.

Eurypelma rusticum Simon, Act. Soc. Linn, Bord., XLIV, 1892, p. 323.

One female, not quite mature, from Williams. June 2.

Family FILISTATIDE.

FILISTATA HIBERNALIS Hentz.

Filistata hibernalis Hentz, Journ. Bost. Soc. Nat. Hist., IV, 1842, p. 227.

A few specimens from Williams, June 10 and July 1.

¹ Proc. U. S. Nat. Mus., XXIII, 1901, pp. 581–590.

Family PHOLCID.E.

PSILOCHORUS PULLULUS Hentz.

Pholous pullwlus Hentz, Journ. Bost. Soc. Nat. Hist., VI, 1850, p. 282.

Several specimens from Williams, July 4, 9-15, and 19. A specimen, June 14, has an egg mass of about 25 eggs, rather loosely attached together.

Family DRASSIDÆ.

DRASSUS COLORADENSIS Emerton.

Drassus coloradensis Emerton, Bull. U. S. Geol. Surv. Terr., 111, Pt. 2, 1877, p. 528.

One female specimen, which I think belongs to this species, from Williams, June 9-15. A figure is given of the vulva.

DRASSODES, sp.

An immature specimen from Williams, June 9-15.

HERPYLLUS ECCLESIASTICUS Hentz.

Herpyllusecclesiasticus Hentz, Journ. Bost. Soc. Nat
 Hist., V, 1847, p. 455.

A few females from Williams, June 9-15 and May 25.

PROSTHESIMA BARBERI, new species.

Cephalothorax and sternum pale brownish, or rather reddish yellow. darker in front; mandibles red-brown; legs somewhat paler than the cephalothorax; abdomen nearly uniform gray above and below; region of epigynum reddish brown. Cephalothorax not very long but much narrowed in front; mandibles rather prominent; legs somewhat shorter than usual; sternum one and one-fourth longer than broad, broadest at middle, pointed behind; abdomen depressed, truncate at base, with tufts of hairs, one and two-thirds as long as broad, pointed behind; spinnerets prominent. Posterior eye-row nearly straight, but little longer than anterior row; posterior middle eyes oval, less than onehalf their diameter apart, fully diameter from rather larger posterior side eyes; anterior middle eyes smaller, about diameter apart, not so far from the large anterior side eyes, which are about their diameter from the equal posterior side eyes; quadrangle of middle eyes higher than broad and broader behind than in front; no spurs under tibiæ I and II, a pair toward base on these metatarsi.

Length, 6 mm.

Several specimens, Williams, in May and June, and Winslow, July 21. One, May 29, has an egg-cocoon, which is of the usual shape, with a plain covering, devoid of any foreign substance, and contains about 30 eggs.

PŒCILOCHROA MONTANA Emerton.

Pacilochroa montana Emerton, Trans. Conn. Acad., VIII, 1890, p. 11.

One female from Bright Angel, August 10.

GRAPHOSA CONSPERSA Thorell.

Graphosa conspersa Thorell, Bull. U. S. Geol. Surv. Terr., 111, Pt. 2, 1877, p. 489.

One immature specimen from Williams, July 23, evidently belongs to this common northern species.

MICARIA, sp.

An immature specimen from Winslow, July 31, is quite possibly an undescribed species.

Family CLUBIONID.E.

CHIRACANTHIUM INCLUSUM Hentz.

Clubiona inclusa Hentz, Journ. Bost. Soc. Nat. Hist., V, 1847, p. 451.

Specimens come from Bright Angel, July 13 (Colorado Canyon, 3,500 feet), and Prescott, June 20.

CLUBIONA, sp.

Immature specimens from Williams, June 9-15.

Family DICTYNID.E.

DICTYNA SUBLATA Hentz.

Theridium sublatum Hentz, Journ. Bost. Soc. Nat. Hist., VI, 1850, p. 276.

A few specimens from Williams, June 5.

LETHIA TRIVITTATA Banks.

Lethia trivittata Banks, Proc. Acad. Nat. Sci. Phila., 1901, p. 577.

A female from Williams, July.

TITANŒCA AMERICANA Emerton.

Titanaca americana Emerton, Trans. Conn. Acad., VII, 1888, p. 453.

Specimens from Williams, June 5.—It is a northern species, but I have seen specimens from near Las Vegas, New Mexico.

Family AGALENIDÆ.

AGALENA NÆVIA Hentz.

Agulena navia Hentz, Journ. Bost. Soc. Nat. Hist., V, 1847, p. 465.

A few examples from Williams, June 9-15, and July 1. They do not differ from many Eastern specimens.

HAHNIA, sp.

One female from Williams, June 5. It is a small species, with a dark abdomen marked above with four prominent transverse spots, the anterior one interrupted in the middle.

Family THERIDID.E.

LATHRODECTES MACTANS Fabricius.

Aranea mactans Fabricius, Entom. Syst., II, 1775, p. 410.

A young specimen from Bright Angel, August 10.

THERIDIUM MURARIUM Emerton.

Theridium murarium Emerton, Trans. Conn. Acad., VI, 1882, p. 11.

Various specimens from Williams, June 9-15, July 20-27; and Bright Angel, August 10.

LITHYPHANTES COROLLATUS Linnæus.

Aranea corollata Linneus, Syst. Nat., X, 1758, p. 621.

Several specimens from Williams, June 9-15, July 19.

LITHYPHANTES MEDIALIS Banks.

Lithyphantes medialis Banks, Proc. Cal. Acad. Sci., (3), Zool., I, 1898, p. 240.

A specimen from Prescott, June 20. This species was described from Mexico, and this is the first record of its occurrence in the United States.

STEATODA GRANDIS Banks.

Steatoda grandis Banks, Proc. Acad. Nat. Sci. Phila., 1901, p. 578 Specimens from Williams, June 8–15 and July 4.

DIPŒNA NIGRA Emerton.

Steatoda nigra Emerton, Trans. Conn. Acad., VI, 1882, p. 21. A female from Williams, July 27.

EURYOPIS FUNEBRIS Hentz.

Theridium funebre Hentz, Journ. Bost. Soc. Nat. Hist., VI, 1850, p. 276.

Various specimens from Williams, May 25, June 9-15, and July 4, 17, and 19.

ERIGONE, sp.

One female from Williams, May 25. It is pale yellowish, with a gray abdomen, marked behind by pale chevrons.

Family EPEIRID.E.

EPEIRA GEMMA McCook.

Epeira gemma МсСоок, Proc. Acad. Nat. Sci. Phila., 1888, p. 193.

Several females from Williams, May 25, June 9-15, and July 27.

EPEIRA CONCHLEA McCook.

Epeira conchlea McCook, Proc. Acad. Nat. Sci. Phila., 1888, p. 199.

One female from Hot Springs, June 21–28; another from Bright Angel, July 10.

EPEIRA DISPLICATA Hentz.

Epeira displicata Hentz, Journ. Bost. Soc. Nat. Hist., V, 1847, p. 476.

A female from Williams, July 20-27.

TETRAGNATHA EXTENSA Linnæus.

Aranea extensa Linneus, Syst. Nat., XII, 1767, p. 621.

Several specimens from Colorado Canyon, July 13, and Williams, June 9-15.

Family THOMISHDÆ.

XYSTICUS FORMOSUS Banks.

Xysticus formosus Banks, Proc. Acad. Nat. Sci. Phila., 1892, p. 56.

Specimens from Williams, May 29, June 5, July 1, and Bright Angel, August 10.

XYSTICUS DISCURSANS Keyserling.

Xysticus discursans Keyserling, Die Spinn. Amer., I, Latr., 1880, p. 20.

One specimen from Williams, July 1-4.

XYSTICUS BENEFACTOR Keyserling.

Xysticus benefactor Keyserling, Die Spinn. Amer., I, Latr., 1880, p. 22.

One pair from Williams, June 5 and July 20.

XYSTICUS LOCUPLES Keyserling.

Xysticus locuples Keyserling, Die Spinn. Amer., I, Latr., 1880, p. 24.

Many specimens from Williams, June 9-15, July 5, and Bright Angel, July 10.

MISUMENA DIEGOI Keyserling.

Misumena diegoi Keyserling, Verh. zool.-bot. Ges. Wien, 1887, p. 481.

Many specimens from Williams, June 9-15, May 25, and July 23; also from Hot Springs, June 21-28.

MISUMENA GEORGIANA Keyserling.

Misumena georgiana Keyserling, Die Spinn, Amer., 1, Latr., 1880, p. 86. Several specimens from Williams, July 27.

CORIARACHNE VERSICOLOR Keyserling.

Coriarachue rersicolor Keyserling, Die Spinn, Amer., I, Latr., 1880, p. 53.

A few specimens from Williams, June 5, July 1-4, and July 27.

TMARUS CAUDATUS Hentz.

Thomisus candatus Hentz, Journ. Bost. Soc. Nat. Hist., V, 1847, p. 447.

Various specimens from Williams, June 5, July 1 and 4; also from Prescott, June 20.

TIBELLUS DUTTONI Hentz.

Thomisus duttoni Hentz, Journ. Bost. Soc. Nat. Hist., V, 1847, p. 448.

A few specimens from Colorado Canyon, July 13.

THANATUS COLORADENSIS Keyserling.

Thanatus coloradensis Keyserling, Die Spinn. Amer., I, Latr., 1880, p. 206.

Several examples from Williams, June 9-15, and Bright Angel, August 10.

PHILODROMUS PRÆLUSTRIS Keyserling.

Philodromus pralustris Keyserling, Die Spinn. Amer., I, Latr., 1880, p. 209.

Many specimens from Williams, June 5, July 19; Hot Springs, June 21–28, and Bright Angel, August 10.

PHILODROMUS RUFUS Walckenaer.

Philodromus rufus Walckenaer, Fanne de France, Arach., 1825, p. 91.

A few specimens from Williams, May 25 and June 9-15.

Family SPARASSID.E.

OLIOS FASCICULATUS Simon.

Olios fusciculatus Simon, Act. Soc. Linn. Bord., 1880, p. 87.

One specimen from Hot Springs, June 21-24. Previously known only from the Pacific coast.

Family LYCOSIDÆ.

DOLOMEDES SCRIPTUS Hentz.

Dolomedes scriptus Hentz, Journ. Bost. Soc. Nat. Hist., V, 1847, p. 189.

One female and a young specimen from Hot Springs, June 27. A common Eastern species.

TROCHOSA CINEREA Fabricius.

Aranea cinerea Fabricius, Entom. Syst., II, 1793, p. 423.

One specimen from Hot Springs, June 21-28.

TROCHOSA PARVA Banks.

Trochosa parra Banks, Journ. N. Y. Ent. Soc., 1894, p. 52.

Several specimens from Colorado Canyon, July 13.

LYCOSA SCALARIS Thorell.

Tarentula scalaris Thorell, Bull. U. S. Geog. Surv. Terr., 111, Pt. 2, 1877, p. 520.

A couple of specimens from Williams, June 9-15. Very common in Colorado and the Northwest.

LYCOSA, sp.

Two females of a large species, without very distinctive characters, from Williams, May 25 and July 20. It is allied to *L. riparia*, and may be only a form of that species.

PARDOSA STERNALIS Thorell.

Lycosa sternalis Thorell, Bull. U. S. Geog. Surv. Terr., III, Pt. 2, 1877, p. 504.

A few specimens from Williams, June 9-15; Prescott, June 20, and Flagstaff, July 5. A common species in Colorado.

PARDOSA, sp.

A female from Williams, July. Apparently of an undescribed specie

Family OXYOPID.E.

OXYOPES COMPACTA Banks.

Oxyopes compacta Banks, Trans. Amer. Ent. Soc., XXIII, 1896, p. 72.

Various specimens from Williams, June 5; Bright Angel, August 10, and Prescott, June 20. Known previously only from Colorado.

HAMALATIWA GRISEA Keyserling.

Hamalatiwa grišea Keyserling, Verh. zool.-bot. Ges. Wien, 1887, p. 457.

Specimens from Hot Springs, June 21–28. Widely distributed in the South.

Family ATTIDÆ.

PHIDIPPUS BICOLOR Keyserling.

Phidippus bicolor Keyserling, Verh. zool.-bot. Ges. Wien, 1884, p. 496.

One pair from Williams, July 20 and 26. A common species in the arid region of the West.

PHIDIPPUS, sp.

A mature female from Williams, July 19, catching a *Pieris*; a young specimen from Prescott. A very handsome species which, I think, is as yet undescribed.

COLONUS RETARIUS Hentz.

Attus retarius Hentz, Journ. Bost. Soc. Nat. Hist., VI, 1850, p. 288. One young specimen from Hot Springs, January 21–28.

DENDRYPHANTES OCTAVUS Hentz.

Attus octavus Hentz, Journ. Bost. Soc. Nat. Hist., V, 1847, p. 365.

Several specimens from Williams, June 9-15, July 21, and May 25; also from Prescott, June 20, and Hot Springs, June 21-28.

DENDRYPHANTES, sp.

A few females from Williams, July 9-15.

ASTIA MOROSA Peckham.

Astia morosa Peckham., Trans. Wise, Acad. Sciences, VII, 1888, p. 71.

One female from Williams, July. An uncommon species, and as yet known only from the female.

ERGANE BOREALIS Blackwell.

Salticus borealis Blackwell, Ann. Mag. Nat. Hist., XVII, 1846, p. 35.

One female from Williams, July 1-4; a pale specimen.

PELLENES ELEGANS Peckham.

Pellenes elegans Peckham, Bull. Wisc. Nat. Hist. Soc., Oct., 1900, p. 220.
Pellenes dolosus Peckham, Bull. Wisc. Nat. Hist. Soc., Oct., 1900, p. 222.

Specimens from Hot Springs, June 21-28, and Bright Angel, August 10.

ICIUS SIMILIS Banks.

Icius similis Banks, Can. Entom., 1895, p. 100.

A young specimen from Prescott, June 20.

ICIUS, sp.

An immature specimen, of a species unknown to me, from Colorado Canyon, July 13.

MARPISSA CALIFORNICA Peckham.

Marptusa californica Рескнам, Trans. Wise. Acad. Sciences, VII, 1888, p. 81. One female from Hot Springs, June 21-28.

MARPISSA ALBOPILOSA, new species.

Cephalothorax black, with a broad area of white hairs, narrowed in front between the anterior middle eyes, where it passes down on the clypeus; a white stripe on the side margins; sternum and coxac reddish, with long white hair. Abdomen black, above with many white hairs, giving it a mottled gray appearance; venter more gray, with many white hairs; legs with black hair above, long white hair beneath and on outer side, shorter, adpressed, clongate, scale-like hair above and on sides, scattered among the other hairs. Cephalothorax long and flat, broadest in the middle, tapering each way; abdomen long and slender, depressed; region of epigynum elevated, corneus, and rugose, displaying two large cavities in the anterior portion. Legs short and stout, the anterior pair especially thickened, the spines few and reduced in size; under tibia I there is but one spine toward tip, two pairs under or rather on the lower sides of metatarsus I; spines on hind legs few, but more slender; sternum narrow, the anterior coxa separated by less than the width of lip.

Length, 6.5 mm.

Two specimens from Williams, in July. A very interesting species of a hoary appearance.

SYNAGELES SCORPIONA Hentz.

Symemosyna scorpiona Hentz, Journ. Bost. Soc. Nat. Hist., V, 1847, p. 369.

Two specimens from Williams, July 1-4.

Order PHALANGIDA.

Family PHALANGIDÆ.

PROTOLOPHUS TUBERCULATUS Banks.

Protolophus tuberculatus Banks, Can. Entom., 1893, p. 206.

A few specimens from Williams, June.

LIOBUNUM TOWNSENDI Weed.

Liobunum townsendi Weed, Amer. Nat., 1893, p. 295.

Many specimens from Williams, July 17, 18, 21; also Bright Angel, August 10.

Order SCORPIONIDA.

Family VEJOVIIDÆ.

VEJOVIS BOREUS Girard.

Scorpio boreus Girard, Marcy's Rept. Expl. Red River, 1854, p. 238.

Several specimens from Williams, May 25, July 9-15; Bright Angel, August 10; Winslow, July 31, and Prescott, June 20.

Order PSEUDOSCORPIONIDA.

Family CHELIFERID.E.

CHELIFER SCABRISCULIS Simon.

Chelifer seabrisculis Simon, Ann. Soc. Ent. France, 1878, p. 154.

Many specimens from Williams, May 25, June 6.

CHELANOPS GROSSUS Banks.

Chernes grossus Banks, Can. Entom., 1893, p. 65.

Many specimens from Williams, June 9-15, July 7. Some specimens taken in June bear the egg-mass, consisting of about twenty eggs tightly bound together and forming a flattened hemisphere. Two specimens were found under the elytra of a beetle, *Ergates spiculatus*, taken July 17 at Williams.

OLPIUM, sp.

One specimen, of an obscure species; Williams, July.

Order SOLPUGIDA.

Family EREMOBATIDÆ.

EREMOBATES SULFUREUS Simon.

Datames sulfereus Simon, Ann. Soc. Ent. France (5), IX, 1879, p. 142.

Several specimens from Williams, May 25, June 10; Bright Angel, August 10, and Flagstaff, July 5.

Order ACARINA.

Family RHYNCHOLOPHIDÆ.

RHYNCHOLOPHUS ROBUSTUS Banks.

Rhyncholophus robustus Banks, Ann. N. Y. Acad. Science, VIII, 1895, p. 432.

Several specimens from Williams, June 9-15; also a number of their eggs.

RHYNCHOLOPHUS MACULATUS Banks.

Rhyncholophus maculatus Banks, Trans. Amer. Ent. Soc., 1894, p. 217.

A few specimens from Williams, June.

RHYNCHOLOPHUS, sp.

One specimen of a broad, pale yellowish species, from Winslow, July 21.

Family GAMASIDÆ.

GAMASUS, sp.

A few specimens taken at Williams, May 23, in a nest of a Lasius.

DISCOPOMA HIRSUTA, new species.

Pale yellowish throughout. Body a little broader than long; convex above; rather broader in front, and slightly pointed behind; its sides almost parallel. Dorsum smooth, quite thickly covered with long, slender, erect hairs. Sternum nearly as wide behind as in front, its surface, as well as that of the ventral plate, very finely granulate. Legs short and stout, of usual shape, provided with a few hairs.

Length, 0.62 mm.

Taken at Williams June 1, with a species of *Lasius*. It differs from our other species of *Discopona* (*D. circularis*) in the clothing of long hairs, in its larger size, different shape of the sternum, etc.

DISCOPOMA, sp.

One specimen from Flagstaff, July 4, with a species of *Lasius*. It is dark-colored, plainly longer than broad, and with some short hairs in front.

EXPLANATION OF PLATE VII.

- Fig. 1. Protolophus tuberculatus, palpus of female.
 - 2. Marpissa albopilosa, dorsal view.
 - 3. Marpissa albopilosa, yulva.
 - 4. Drassus coloradensis, vulva.
 - 5. Oxyopes compacta, palpus.
 - 6. Oxyopes compacta, vulva.
 - 7. Prosthesima barberi, vulva of small specimen,
 - 8. Discopoma hirsuta, ventral view.
 - 9. Marpissa albopitosa, leg I.
 - 10. Trochosa parva, vulva.
 - 11. Prosthesima barberi, vulva of large specimen.